

U.S. ENVIRONMENTAL PROTECTION AGENCY
 POLLUTION/SITUATION REPORT
 Yeager Impoundment Site - Removal Polrep
 Initial Removal Polrep



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region III**

Subject: POLREP #1
 Initial Polrep
 Yeager Impoundment Site
 A3SC
 Washington, PA
 Latitude: 40.0910530 Longitude: -80.2308310

To: Fran Burns, EPA Region III
 RRC Regional Response Center, EPA Region III

From: Deborah Lindsey, On-Scene Coordinator

Date: 8/30/2012

Reporting Period: 7/13/2012 - 8/15/2012

1. Introduction

1.1 Background

Site Number:	A3SC	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Assessment
NPL Status:		Operable Unit:	
Mobilization Date:		Start Date:	
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response which led to a Removal Assessment.

Sampling activities were originally initiated as an emergency response. Sampling was delayed while obtaining access agreements and further delayed due to dry weather conditions and lack of surface water in the intermittent streams

1.1.2 Site Description

The Site involves a marcellus shale fracturing (fracking) fluid impoundment and the potential release of such fracking fluids resulting in contaminated surface water in a low lying area east of the Yeager Impoundment in Amwell Township, PA. The Yeager Impoundment is several acres in size and holds approximately 13 million gallons of recycled fracking fluid. The Yeager Impoundment is an operational impoundment but had been emptied between May and June 2011 for a liner inspection. The impoundment had been empty at the time of the NRC Report.

1.1.2.1 Location

Low lying area east of the Yeager Impoundment which is located at 400 McAdams Road, Amwell Township, Washington County, Pennsylvania.

1.1.2.2 Description of Threat

This incident involves the potential contamination of surface waters in small intermittent streams down gradient from a marcellus shale fracking fluids impoundment. The streams reportedly lead to Baner Creek and then into 10 mile Creek.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On July 13, 2011, EPA received NRC Report #982515 stating that "an unknown material was bubbling up from the ground and running down into a stream..." located behind the Yeager Impoundment pond in Amwell Township, Washington County, PA. The caller submitted photos of the material discovered in the stream to the Office of Enforcement, Compliance and Environmental Justice (OECEJ) which were then forwarded on to OSC Debbie Lindsey.

OSC Debbie Lindsey contacted the Oil & Gas Section of the PADEP Southwest Office on July 13, 2011 to confirm that they had received the NRC Report and to discuss any follow-up action that the PADEP maybe conducting. PADEP indicated that they would be conducting a site visit that afternoon and EPA involvement was not needed. PADEP would update the EPA the following day.

2.1.2 Response Actions to Date

On July 14, 2011, representatives from EPA's OECEJ and EAID were conducting a site visit to the Yeager Impoundment Site. OECEJ was conducting an inspection of the impoundment's liner and EAID was conducting follow-up to the NRC Report to ensure compliance with Section 402/404 of the CWA. Since PADEP had not provided follow-up from their site visit the previous day, OSC Debbie Lindsey participated in the site visit with OECEJ and EAID.

Observations made during the July 14th site visit include: the streams located behind the Yeager Impoundment appeared to have been formed from natural drainage in the area. The streams did lead down to a creek which is believed to be Baner Creek. Based on photographs provided to EPA, the streams behind the impoundment had sufficient flow on Tuesday, July 12, 2011 during the discovery/report to the NRC. However, the site visit on July 14th showed the surface water in the streams to be low and covered with a brown film and strong septic odor.

In order to fully assess the potential impact to the streams and creek as reported in the NRC Report, EPA determined the need to sample the streams for the presence of hazardous substances, pollutants or contaminants.

On July 14, 2011, OSC Debbie Lindsey contacted EPA's START Contractor and tasked them with conducting an assessment/sampling at the Yeager Impoundment Site. START began the preparation of a Sampling Plan/Health and Safety Plan, procurement of the necessary safety equipment and sampling materials and procurement of analytical laboratory services.

By close of business on July 14, 2011, EPA had received a message from PADEP on the status of their July 13th site visit. PADEP had collected samples in response to the complaint and analytical is due back in a couple weeks. PADEP preliminary findings indicate that it is rotting vegetation from recent clearing and grubbing activities as part of the pipeline work.

The streams located behind the impoundment pond is located on private property in which the property owner has agreements with both Range Resources and MarkWest (MarkWest) Liberty Midstream and Resources LLC for operations related to marcellus shale. EPA made contact with Range Resources and Mark West for access to sample the swale on or about July 15, 2011.

Between July 15, 2011 and July 26, 2011, EPA worked to obtain access agreements from the necessary property owners in order to collect the surface water samples. Discussions between EPA and Range Resources identified that Range's agreement with the property owner was for only property where Range had operations taking place. It was agreed that since EPA's sampling was to take place outside of the operational area, an access agreement with Range was not required. Range did agree to allow EPA to

traverse Range's operational area in order to access the sampling location. Access and sampling were also coordinated with MarkWest which maintains a 75 ft easement with the current property owner for the portion of the property where sampling was scheduled to take place. Verbal access from MarkWest was provided on July 18, 2011. Access agreements with the current property owners were also obtained.

On August 15, 2011, OSC Debbie Lindsey and START David Iacovone met with a representative from Range Resources in order to gain access to the sampling location to conduct a site reconnaissance. The site reconnaissance was to determine the conditions under which the samples could be collected at the Site. The streams to be sampled were low in surface water flow at the time of the site visit. OSC Lindsey and START determined that the samples would need to be collected soon after a significant rain event in order to collect the volumes necessary for the wide array of analyses.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

No enforcement activities at this time

2.2 Planning Section

2.2.1 Planned Response Activities

Plans for the next operational period include:

- Monitor weather conditions and rainfall amounts in order to schedule sampling
- Collect samples and forward to START procured laboratory for analytical services
- Coordinated with Ft Meade for Data Validation

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

Range Resources and MarkWest have requested that Flame Resistant Products (FRP) Clothing be worn on-site during the sampling event. Range Resources and/or MarkWest representative will be on-site at all times to ensure proper safety procedures and equipment are adhered to.

2.5.2 Liaison Officer

No Liaison Officer assigned

2.5.3 Information Officer

No Information Officer assigned

3. Participating Entities

EPA OSC - Debbie Lindsey
 EPA START - (b) (4)
 Range Resources - Mark Kiel
 MarkWest - Rob McHale
 PADEP - Mike Arch

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Yeager Impoundment Site - Removal Polrep



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III**

Subject: POLREP #2
and Final
Yeager Impoundment Site
A3SC
Washington, PA
Latitude: 40.0910530 Longitude: -80.2308310

To: Fran Burns, EPA Region III
RRC Regional Response Center, EPA Region III

From: Deborah Lindsey, On-Scene Coordinator

Date: 5/21/2012

Reporting Period: 08/15/2012 - 05/21/2012

1. Introduction

1.1 Background

Site Number:	A3SC	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Assessment
NPL Status:		Operable Unit:	
Mobilization Date:		Start Date:	
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

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OSC Debbie Lindsey contacted the Oil & Gas Section of the PADEP Southwest Office on July 13, 2011 to confirm that they had received the NRC Report and to discuss any follow-up action that the PADEP maybe conducting. PADEP indicated that they would be conducting a site visit that afternoon and EPA involvement was not needed. PADEP would update the EPA the following day.

2.1.2 Response Actions to Date

OSC Debbie Lindsey kept monitoring weather conditions for a sufficient rain event which may recharge the streams to produce sufficient volume for sampling. Tropical Storm Lee was predicted to produce a significant rain event in the area during the week of September 4, 2011. OSC Lindsey coordinated access and sampling with both Ranges Resources and MarkWest and scheduled sampling, dependent on sufficient rain and volume, for September 12, 2011.

On September 12, 2011, OSC Lindsey and START met with Range Resources for access to the sampling location. PADEP was on-site conducting regular monitoring and accompanied EPA to the sampling location. PADEP did not stay during the sampling event.

A surface water sample (SW-01) and a duplicate (SW-02) were collected from one location (40° 05.434' north latitude and 80° 13.523' west longitude). The sample location point was selected due to its proximity in regard to the confluence of two streams downhill and to the east of the impoundment and the volume of water available at that point. In order to facilitate sampling, a depression at that point was deepened utilizing a shovel. Approximately 45 minutes elapsed from the time the sample point was deepened and the time the samples were collected in order to flush out silt and sediment. There was sufficient volume present and EPA was able to collect the required volume for the analytical parameters.

Upon completion of the collection of samples by EPA, representatives from Mark West also collected surface water samples from the same location. The analytical parameters for the EPA samples had been provided to Mark West prior to the commencement of sampling activities.

EPA samples were shipped to Test America, located in Denver, Colorado, for analysis via Federal Express. Data Validation of the analytical results was performed by the Region III Environmental Services Assistance Team (ESAT) contractor Lockheed Martin Environmental Services, Ft. Meade, MD.

The samples were analyzed by several different methods for organic constituents including; volatile organic compounds, semi-volatile organic compounds, polycyclic aromatic hydrocarbons, dissolved gases and diesel range only compounds. Results from the organic analysis showed only methane to be present in the sample at a concentration of 3.1 micrograms per liter (µg/l) or parts per billion (ppb). No other analytes were found to be present above the method detection limit (MDL).

The samples were also analyzed by several different methods for various inorganic constituents including but limited to, metals, mercury, bromide, chloride, sulfate, total phosphate, total dissolved solids, total suspended solids, alkalinity and turbidity. The results of the inorganic analyses were compared to EPA Region III Biological Technical Assistance Group (BTAG) Freshwater Screening Benchmarks (July 2006) to determine if concentrations present at the site might present a risk to the ecological receptors in the area. It was determined that the concentrations, in most cases, did not

exceed the BTAG screening levels. There were elevated levels of aluminum, iron, barium, and manganese which are naturally occurring elements

The results of the inorganic analyses were also compared to the Maximum Contaminant Levels (MCLs) under EPA's National Primary Drinking Water Standards to determine if concentrations present at the site might pose a risk to public health. The concentrations measured in the samples did not exceed any of the listed MCLs. Drinking water standards were used in this evaluation since there are no available surface water standards to use to assess risks to public health.

After a review of the analytical data collected from the sampling event on September 12, 2011, the results do not show levels that exceed EPA drinking water standards or ecological risk screening levels. No future action is warranted at this time.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

No information available at this time

2.2 Planning Section

2.2.1 Planned Response Activities

No Further Action at this time.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

Range Resources and MarkWest have requested that Flame Resistant (FR) Clothing be worn on-site during the sampling event. Range Resources and/or MarkWest representative will be on-site at all times to ensure proper safety procedures and equipment are adhered to.

2.5.2 Liaison Officer

No Liaison Officer assigned

2.5.3 Information Officer

No Information Officer Assigned

3. Participating Entities

EPA OSC - Debbie Lindsey
EPA START - Dave Iacovone
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MarkWest - Rob McHale
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4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

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No information available at this time.